INSTITUTION OF CIVIL ENGINEERS.—At a meeting on the 21st ult., the paper read was descriptive of "A method of setting out Railway Junctions," by Arthur Beaulands. The object of the paper was to supply a methodical rule for setting out that portion of a branch line of railway included between the rails of the main line. The author observed, that in all ordinary cases, the curve of the branch line could not be set out from the main line, which was supposed to be straight, by the ordinary methods of setting out railway curves, since the junction was required to make an offset of four to five inches on the length of the switch rail, which was much greater than the offset made from the tangent in the same length by a curve of moderate radius, so that it was necessary to make the junction line start abruptly at a finite angle with the main line. He therefore considered the junction curve to be determined by its passing through three given points—namely, the two extremities of the switch rail and the furthest point of crossing; and from these data he showed how the radius and centre of the circular arc might be found, as well as the positions and angles of the various crossings. To render the method more easy of application, the author gave a table calculated from the principles and formulæ laid down in the paper.

THE ART-UNION OF LONDON AND THE BOARD OF TRADE.—The correspondence is now published, and may be had free, we understand, by subscribers and artists, on application at Trafalgar-square. The artists should move in the matter forthwith. We cannot anticipate a very prosperous year for them; and if the Board of Trade succeed in cramping and reducing the operations of the London Art-Union, matters will be still worse.

FULHAM UNION COMPETITION.—So much mystery and unwillingness to give information has been exhibited at the Hammersmith Workhouse, as to lead to various rumours. The name of the architect, said by us recently to be the successful competitor, was given to us by a person holding an official position in the parish; it appears now, however, that the names should be as follows:—No. 1. Mr. A. Gilbert, Blackheath; 2. Mr. Jarvis, Southwark; and 3. Messrs. Garland and Christopher, Adelphi.

THE ROYAL ACADEMY EXHIBITION.—A writer in the *Times* suggests that the council of the Royal Academy should issue season tickets, at 5s. each, as a boon to those who would really enjoy the contemplation of the works of art exhibited there.

IMPROVEMENTS IN TRUSSING BEAMS AND GIRDERS.—A patent has been taken out by Mr. William Gibbons, of Corbyns-hall, Worcester, for the application of bow-springs with the tie-rods employed in trussed-beams and girders, and for the formation of cast-iron beams and girders with grooves on their sides for insertion of the rods. The springs are intended to impart an upward pressure, by adjusting them at about the centre and under side; they are also to be applied in compound beams or girders, at the points of junction of each of the main portions. We do not at first sight recognise their value.

AN ARCHÆOLOGICAL SOCIETY has been formed at Bury. A meeting was held on Thursday to carry out the project; and a considerable number of subscribers have been obtained.

PRESERVATION OF NATIONAL MONUMENTS.—One of the first acts of the present King of Denmark has been to issue an order that all the national monuments on the royal estates shall be excepted from the leases to the under-tenants—and preserved as the property of the public.

QUICK WORK IN THEATRES.—A correspondent, commenting on the notice of the recent alterations at the Italian Opera-house, Covent Garden, says:—"I am inclined to think your correspondent may not be aware that the theatre in question was built by the late Mr. Alexander Copland in *ten months*, under the direction of Sir Robert Smirke; and that your humble servant pulled down the old, and built the present Haymarket Theatre in *four months*, under the direction of the late John Nash, Esq.—I am, Sir, &c.,

JOHN REID."

TENDERS

Tenders for works to be done at Holloway-place, for Mr. James Tyler. Mr. James Harrison, architect:—

Piper	£2,196
Locke and Nesham	2,123
W. Cubitt and Co.	1,940
Lawrence	1,874
Jay	1,873

List of Tenders for rebuilding the Irongate Wharf and Warehouse, St. Katharine, Thames-street, for the St. Katharine Dock Company. Mr. George Aitchison, architect:—

Little	£31,397
Lee	30,576
Piper	30,320
Grimsdell	30,500
D'Aaron	30,150
W. Cubitt and Co.	28,800
Kelk	28,474
Harrison (accepted)	27,750

For 460 feet of Sewers in Finchley-road, 25th March, 1848.

Mutter	£301	15 0
Robinson	291	0 0
Perkins	288	0 0
Livermore	266	0 0
Hill	256	0 0
Bedford	239	0 0
Shepherd	233	0 0
Humphreys and Thirst	219	0 0
Bradley and Rogers	215	10 0

MEETINGS OF SCIENTIFIC BODIES

Held during the ensuing week.

MONDAY, April 3.—Institute of British Architects, 8 P.M.
TUESDAY, 4.—Institution of Civil Engineers, 8 P.M.
WEDNESDAY, 5.—Society of Arts, 8 P.M. (annual meeting).
THURSDAY, 6.—Royal Society, 8½ P.M.; Society of Antiquaries, 8 P.M.
FRIDAY, 7.—Archæological Institute, 4 P.M.

TO CORRESPONDENTS.

"*South Stoneham Union Competition.*"—We have already printed a similar letter. Competitors may justly complain of the way in which they have been treated. One threatens proceedings.

"*X. Y. Z.*"—An answer next week.

"*H. K. P.*"—We cannot reply without seeing the paper: it should be returned safely if not eligible. The subject would suit us.

"*Zeta.*"—Yes. According to the New Buildings Act, the basement, if there be one, is the first story, ground floor, &c.

"*G. G.*" (Norfolk).—Send three penny stamps to Cundall's, 12, Old Bond-street, for the Art Manufactures' Catalogue.

Received.—"W. W.," "J. M.," "A Working Man," "M. P.," "An old R. A.," "A Competitor," "Constant Reader" (Chester), "C. A." (shall appear), "J. D. P." (next week), "C. D. R.," "W. S.," "Architect," "J. N.," "N. W.," "W. W.," York (not our province), "T. W.," "F. H. W.," "R. S. N." (Gateshead), "Art-Union Journal" for April (Chapman and Hall), "Tradesman's Book of Ornamental Designs," part X. (Orr and Co.).

"*Books, Prices, and Addresses.*"—We have not time to point out books or their addresses.

ADVERTISEMENTS.

NOTICE.—ROYAL POLYTECHNIC INSTITUTION, incorporated by Royal Charter in 1839.—ARTISTES and MANUFACTURERS of the USEFUL and ORNAMENTAL ARTS, and PATENTEES of NEW INVENTIONS, especially of WORKING MODELS, are respectfully informed that their Works should be forwarded to the Institution for Deposit on or before the 8th instant, to be in time for the New Edition of the Catalogue.
The INSTITUTION will be RE-OPENED to the Public on the 8th instant. R. J. LONGBOTTOM, Secretary.
April 1, 1848.

TO BUILDERS, PAINTERS, AND OTHERS.
MESSRS. WOOD and Co., GRAINERS and WRITERS to the Trade only, 70, York Road, Lambeth; and at 99, Great Street, Blackfriars Road.
. An Apprentice wanted.

TEN TON LANDING CRANE, for IRON CASTINGS, BOILERS, TIMBER, and STONE. Also, Warehousing on the London Vulcan Iron Company's Wharf, 14, Earl-street, Blackfriars. Also, COAL LANDING on same Wharf.

JENNINGS'S PATENT INDIA-RUBBER TUBE COCKS can be had of any size, at prices not exceeding those ever made for the Fire Cock.
For JENNINGS'S PATENT JOINTS, WATER CLOSET, and PATENT VALVES, a list of prices may be had by enclosing a stamp.
JENNINGS'S SHOP SHUTTER SHOE and FASTNER can be had in malleable iron, at 2s. 6d. per shutter until the trade; a list of testimonials may be seen by applying at the manufactory, No. 29, Great Charlotte-street, Blackfriars road.

TO DRAUGHTSMEN AND CIVIL ENGINEERS.
H. MORRELL, BLACK LEAD PENCIL MANUFACTURER, No. 149, Fleet-street, London.
These Pencils are prepared in various degrees of hardness and shades.

H H H for drawing on wood.	F F F for shading.
H H H for architectural use.	F for general use.
H H for engineering.	H for shading.
H for sketching.	H B ditto ditto.
H B hard and black for drawing.	B B B ditto ditto.
	B B B B ditto ditto.

M medium.
Sold by all the principal Stationers in town or country.

TO GAS COMPANIES, Gas Fitters, and Gas Consumers.—N. DEPRIES, 16, Hampstead-road, C., St. Martin's-lane, and 119, Argyle-street, Glasgow, having proved by eight years' experience his DRY METER to be unrivalled, begs to say, that nearly 20,000 are now in use, defying injurious gas, and are never allowed by Heat, Damp, or Frost. They may be obtained on Hire of all the Gas Companies who supply Meters to their Customers.—Testimonials of great value may be obtained at either Factory.

DOMESTIC GAS FITTINGS.—The cleanliness, cheapness, brilliancy, and safety of this mode of lighting, private residences are looking to its general adoption. GEORGE and JOHN DEANE'S stock of LAMPS, Chandeliers, Brackets, &c., is very large, and exhibits the most elegant and modern designs. G. and J. DEANE fit up single apartments or houses on true scientific principles, and in the most artistic style, and as every thing is got up in their own workshops, G. and J. DEANE can engage for the strictest punctuality and the lowest possible charges.—N.B. Plans and estimates prepared.—GEORGE and JOHN DEANE, Gas-fitters, opening to the Monument, 46, King William-street, London-bridge.

ENCAUSTIC, VENETIAN, BATH, and other PATENT TILES, and MOSAIC PAVEMENTS, may be obtained in great variety at MINTON and Co.'s Warehouse, 3, Albion-place, Hyde-Park-corner, and Minton's Patent Tile Manufactory, Stoke-upon-Trent, Staffordshire.—W. S. Sales and Tiles for Fireplaces, plain and ornamental; Door Furniture, &c.

J. GOODWIN'S TERRA-METALLICA.—Blue Tiles, Ridges, Hips, Quarries, Building and Flooring Bricks, Horse-floor Bricks, Wall-tile Quarries, Cylindrical, Conical, and Socket-pipes, of every variety and size, may be had at the Lodge Tile-works, near Stoke upon Trent, Staffordshire Potteries, the Trent and Mersey Canal, and the North Staffordshire Railway, supplying the means of a ready communication with most parts of the kingdom.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c., of at least 100 sorts and sizes. In addition to the numerous purposes to which it is applied already, this Material may be moulded into a great variety of articles required either at home or abroad by the Nobility, Clergy, Gentry, Architects, Civil Engineers, and Builders; also by owners and occupiers generally of Land, Mines, Railways, Buildings, Gardens, and other property. See advertisement with figures, in "The Builder" of the 2nd, 16th, and 30th October, and 13th November, 1847, also 1st January, 1848. Lists are ready, containing prices both per number and also per square, per yard, per foot, &c.—Applicants would oblige by stating if they want the prices in Staffordshire or London.—Address 4, Wharf, Macclesfield-street South, City-road Basin.

TO BRICK AND TILE MAKERS.
THE AINSLIE BRICK and TILE MACHINE COMPANY (James Smith, Esq., of Deanston, Chairman) invite attention to their improved Brick and Tile Machines, which are to be seen at work at Alperton, and at the Company's office, 193A, Piccadilly, from Ten A.M., to Five P.M. Mr. Herbert Mariveyer, who has been appointed manager in the room of Mr. John Ainslie, will show the machines at the works at Alperton, which is within a mile of the Sudbury station of the London and North-Western Railway, and two miles of the Ealing station of the Great Western Railway; also at the Polytechnic Institution, Regent-street, London. All communications to be addressed to Mr WILLIAM GOLDING, Secretary, at the office of the Company, London, 193A, Piccadilly.—March 1, 1848. These machines may also be seen at Mr. Shedden, Leith-walk, Edinburgh; Mr. Robert Boyle's Agent, Mr. Lawrence Hill's, 128, Buchanan-street, Glasgow; Mr Robert Charles, Millhill, Leeds; Messrs. Penny and Francis Pemberton, Staffordshire; Messrs. Drummond and Sons, Dublin; and Mr. John Connor, Newton Limavady, County Derry.

PAPER-HANGINGS, CHEAPEST IN LONDON.—Builders, the Trade, and Country Dealers, may select from a Stock of 5,000 Pieces of the newest designs, French and English Bedrooms, 4½d. per yard; Rooms, 5d. per yard; Flocks, 6d. per yard. Patterns for approval sent to town or country; and Goods forwarded free of expense. A large discount allowed on taking a quantity. Panel decorations, flowers, or oaks remarkably cheap. Terms, cash. Established twenty years.
W. CROSBY, 32, Lowther Arcade, Charing Cross.

PAPER-HANGINGS, MANUFACTURED UNDER HER MAJESTY'S ROYAL LETTERS PATENT.
E. T. ARCHER, 451, Oxford-street, solicits an inspection of the various DECORATIVE PAPERS, fitted up in panels on the walls of the extensive range of show-rooms built expressly for that purpose; where also is kept an extensive stock of every variety of Paper-hangings at the lowest possible price and of the best manufacture, in English and French Designs by the best Artists; and where may be had a large assortment of French and other Continental Paper-hangings always on hand.—Builders and large Consumers are particularly invited to the above, 451, Oxford-street.

JACKSON'S PAPIER MACHE and CARTON PIERRE Enrichments executed in the best style, at Prices Manufacturers, 6 and 7, Kathyne-place.
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Drawings prepared, Ceiling Flowers, Mouldings, Wall-dressings, and general Interior decorations in every style.

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BIELEFELD'S IMPROVED PAPIER MACHE, which has been almost universally adopted for architectural decoration, has been patronised by her Majesty, by the Houses of Lords and Commons, by Board of Works, by the Palaces of the nobility and gentry, and by the most eminent architects of the day. It has been used at the royal palaces, at the present Houses of Lords, at Dublin Castle, at Drayton Manor, the new Conservative Club House, Grosvenor Hall, &c., also at the British Museum and Pantheon Bazaar, where it has been extensively used for some years, and an inspection will sufficiently establish its superiority over every other kind of composition, both for beauty and durability. Designs prepared for the decoration of cottages, panelling of walls, &c. Specimens of enrichments, containing more than 1,000 designs of the papier maché ornaments, with a tariff, price £1.—Works, 13, Wellington Street North, Strand.

THE REGISTERED VALVE HYDRAULIC RAMS, FOUNTAIN BARIES, in Iron; Waterwheels, Steam-engines, &c.; Pumps for deep Wells, &c.; Liquid-manure Pumps; Fountain Jets of every design; Double Rams, and every other description, erected and boxed on reasonable principles; Buildings heated by Hot Water; Kitchens fitted up in the most economical plan, both as regards Fuel and Trouble; Table Fountains to play Scented Water during Dessert; Analysis of Water from 7s. 6d. to £5 5s.; by FREEMAN ROE, Hydraulic Engineer and Fountain Maker, No. 70, Strand, London.—Wells sunk and boring executed in town and country.

UNDERHAY'S PATENT BALL VALVES, Manufactured by C. BUTTES, Crawford-passage, Rae-street, Clerkenwell, where Drawings and Price Lists may be obtained. These valves can neither stick nor work hard; they keep open longer, and are cheaper than common cocks. The waterway, which in the latter averages one-third, in them is equal to that of the pipe. They act under every variety of pressure, and where required for confined situations, the balls can be made smaller and the rods shorter than usual.
BIB, STOP, and other COCKS, embracing improvements of equal importance, are made on the same principle.
Underhay's Patent Silent Spiral Valves are self-acting, contain least, and besides being cleanest than the common cock, are more ornamental. Twenty thousand of the above valves have been sold within two years.
We beg to submit some of the many testimonials in our possession:—

London Works, near Birmingham.

Dear Sir,—We have used many of your patent ball valves, and find them they answer their purpose extremely well, and are very certain in their action.—We are, yours obediently,
Mr. F. G. Underhay. FOX, HENDERSON, and Co.

Messrs. W. Cubitt and Co., of Grays-inn-lane, and Messrs. T. Cubitt and Co., Thames-bank, also many other eminent firms who have used large quantities of them, will vouch for their being superior to any other articles applicable to the same purposes.

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STEPHENS'S DYES for STAINING WOOD, AS A SUBSTITUTE FOR PAINT, for decorating Churches, large Public Rooms, and Theatres, as well as Private Dwellings. Where economy in expenditure of material and time is of importance, these Dyes will be found of the greatest advantage, as they give a rich colour to plain woods, while they retain all the beauty of the natural graining, which is so superior to imitations by art, and, at the same time, avoid the disagreeable smell and deleterious consequences of paint. The dyes or stains are prepared and sold by HENRY STEPHENS, 58, Stamford-street, Blackfriars-road, London, in bottles of 6d. and 1s. each, and 10s. per gallon. They may also be obtained in powder at 6s. per pound, which dissolves in water to form the liquid, and one pound will make one gallon of stain.
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